

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: LUMARK

Report Number: P961431

Luminaire Tested: **NAV-SB2A-740-U-SLL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961431
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-9)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2A-740-U-SLL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 4000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND SPILL LIGHT
ELIMINATOR LEFT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7424.1 lumens
Efficiency: N/A
Efficacy: 129.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

Input Watts (W): 57.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



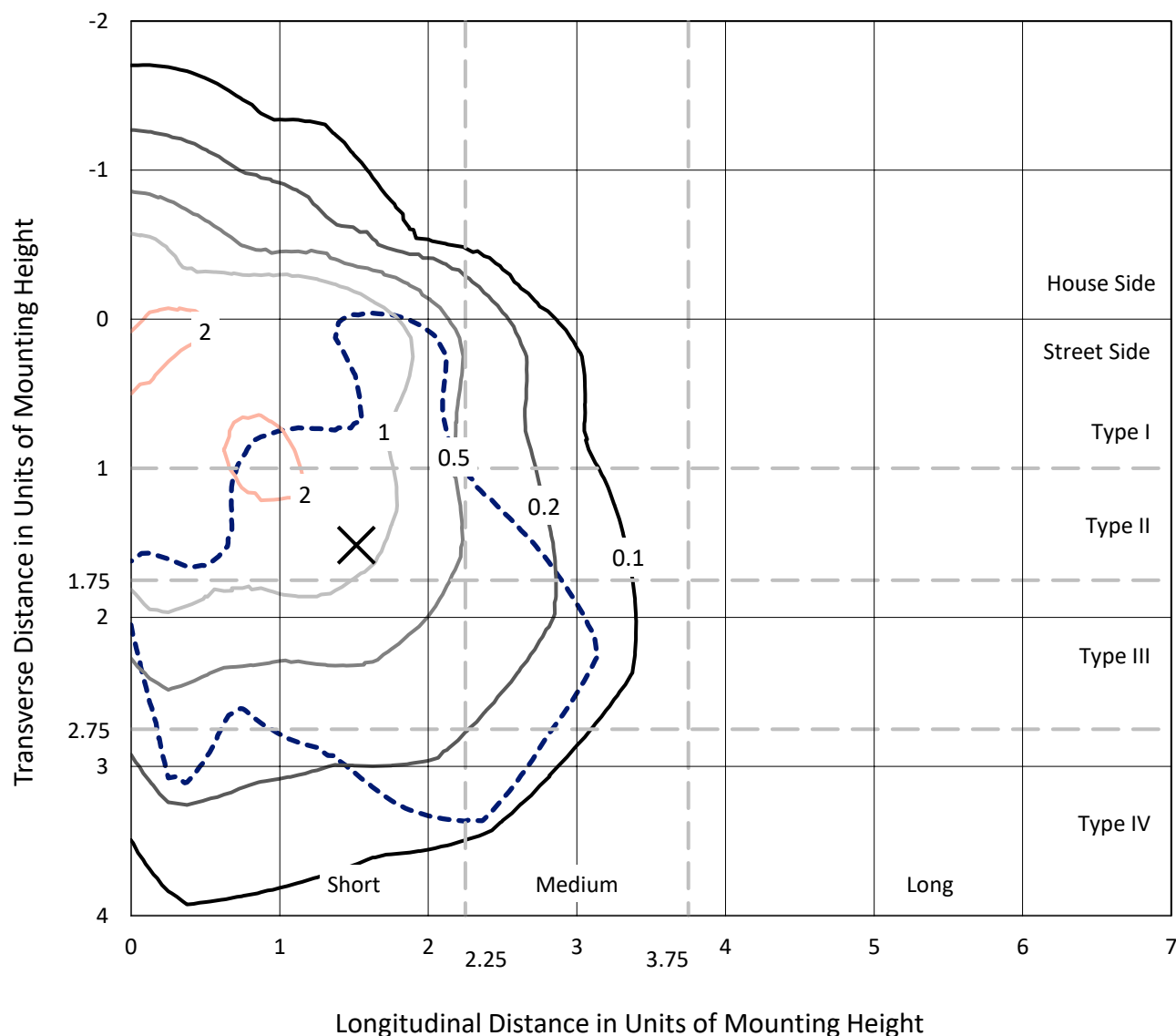
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

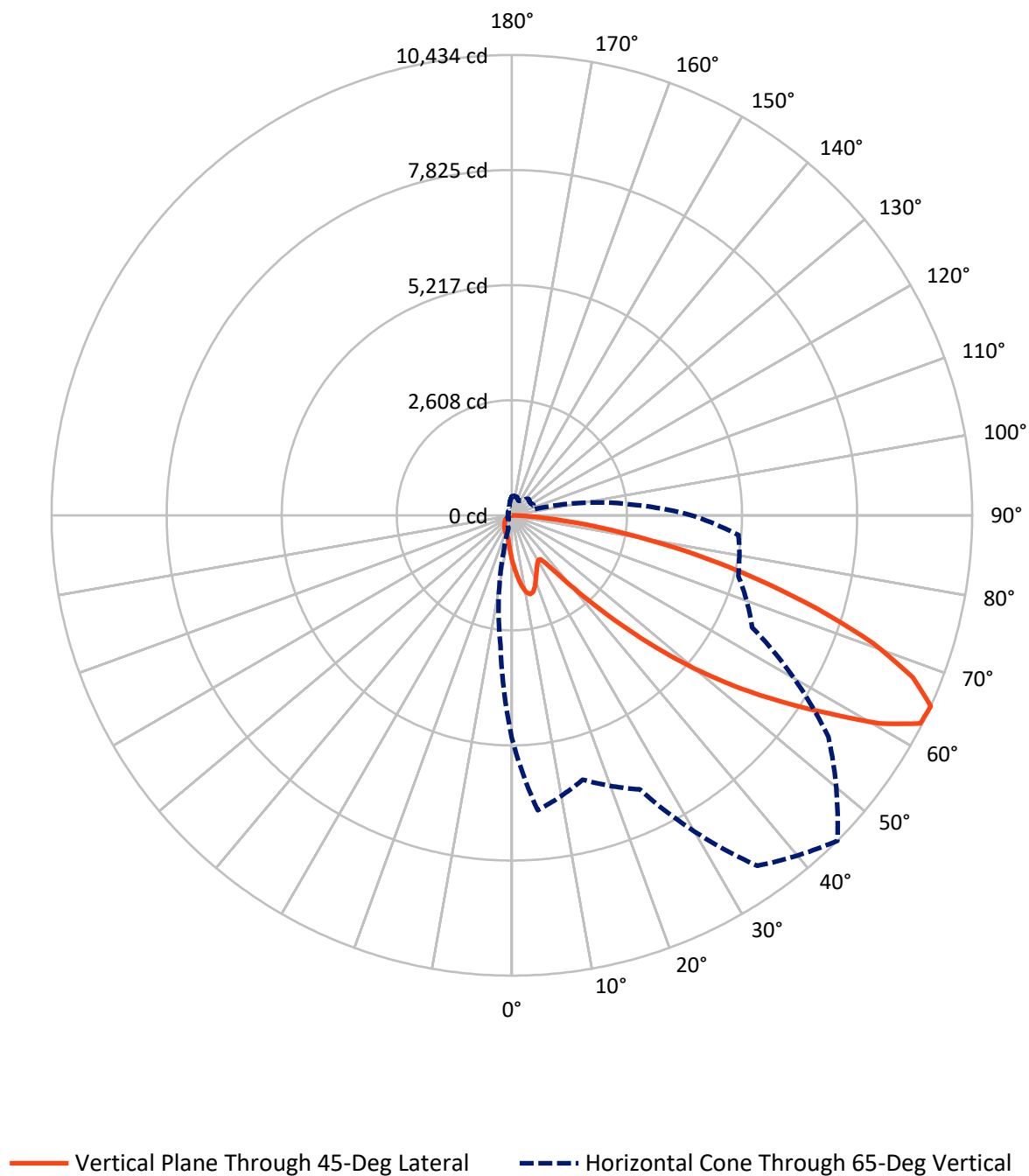


Based on 25 foot mounting height. Maximum calculated value = 2.7 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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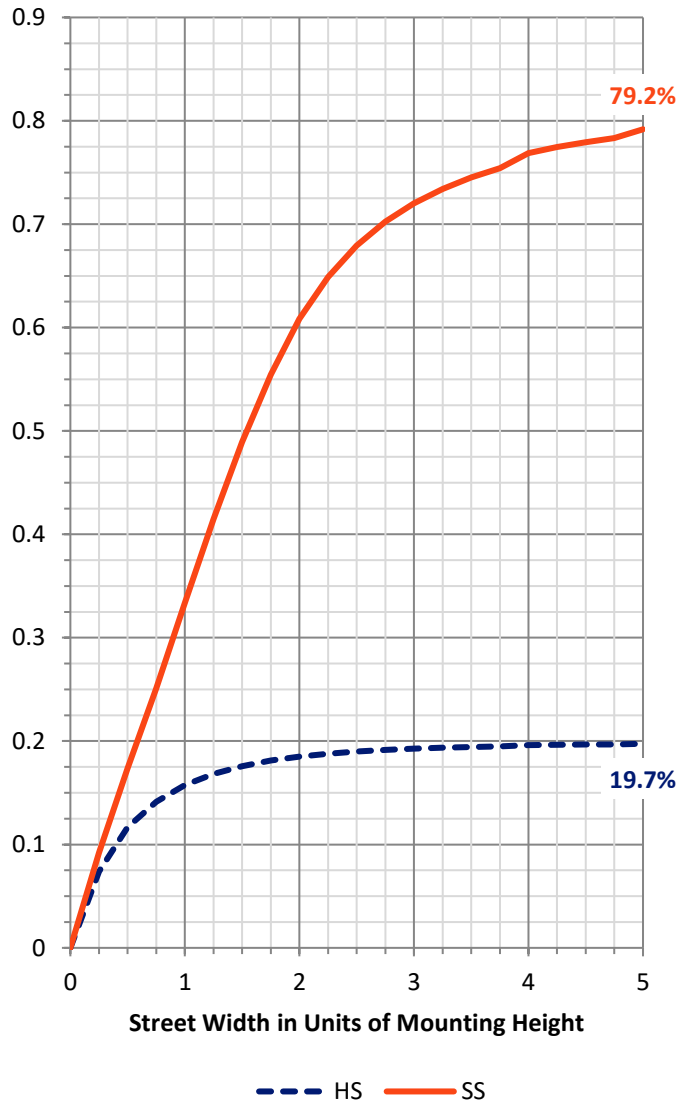
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1475.7	0.0	1475.7
	% Fixture	19.9	0.0	19.9
Street Side	Lumens	5948.4	0.0	5948.4
	% Fixture	80.1	0.0	80.1
Total	Lumens	7424.1	0.0	7424.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.2	1.4
10°-20°	303.4	4.1
20°-30°	447.0	6.0
30°-40°	574.2	7.7
40°-50°	928.7	12.5
50°-60°	1628.6	21.9
60°-70°	2037.8	27.4
70°-80°	1190.8	16.0
80°-90°	212.5	2.9
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	7424.1	100.0
0°-180°	7424.1	100.0

Coefficient of Utilization



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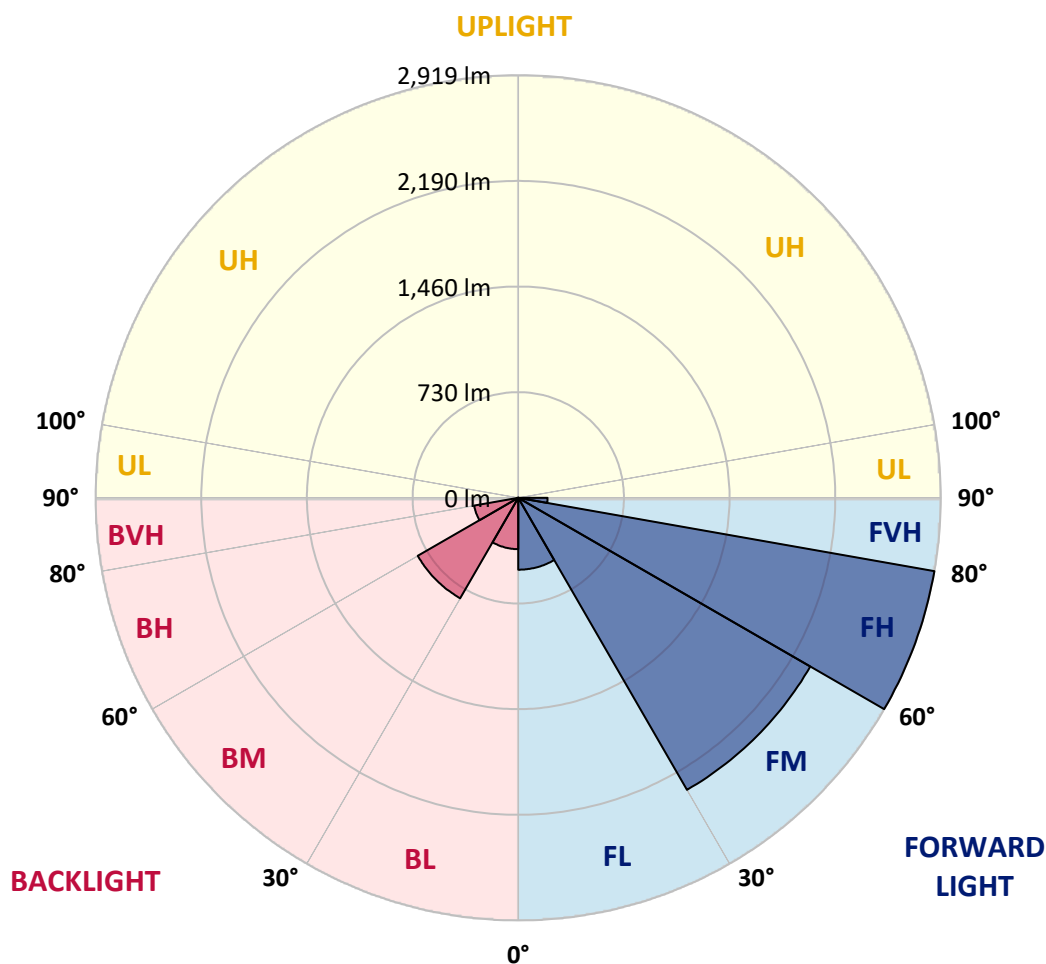
CATALOG NUMBER: NAV-SB2A-740-U-SLL-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	496.8	6.7			
FM	(30°-60°)	2329.8	31.4			
FH	(60°-80°)	2919.4	39.3			G2/5000
FVH	(80°-90°)	202.5	2.7			G2/225
BL	(0°-30°)	354.8	4.8	B1/500		
BM	(30°-60°)	801.7	10.8	B1/1000		
BH	(60°-80°)	309.2	4.2	B1/500		G1/500
BVH	(80°-90°)	10.0	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1028.0	1028.0	1028.0	1028.0	1028.0	1028.0	1028.0	1028.0	1028.0	1028.0	1028.0
2.5°	1151.8	1160.5	1179.9	1190.1	1206.0	1207.0	1207.0	1193.2	1192.7	1164.5	1161.5
5°	1287.3	1307.8	1353.8	1401.4	1411.5	1414.1	1409.1	1381.4	1361.0	1306.3	1294.5
7.5°	1421.8	1461.1	1531.2	1594.7	1615.1	1615.1	1602.9	1557.9	1515.9	1436.6	1407.0
10°	1533.3	1582.9	1678.0	1749.2	1772.6	1767.5	1742.5	1685.7	1627.9	1531.8	1492.9
12.5°	1607.0	1662.7	1767.0	1824.3	1848.4	1835.1	1806.5	1751.2	1690.3	1589.1	1545.1
15°	1643.8	1702.1	1792.6	1822.8	1816.1	1802.4	1798.8	1772.1	1726.1	1631.5	1583.4
17.5°	1659.6	1713.8	1776.7	1757.8	1701.6	1690.8	1726.6	1760.3	1749.2	1668.3	1623.3
20°	1674.4	1720.0	1738.9	1655.1	1556.9	1547.1	1615.6	1711.7	1760.8	1702.6	1661.1
22.5°	1694.9	1723.0	1684.2	1546.6	1440.7	1418.2	1493.9	1638.7	1764.4	1746.1	1704.7
25°	1723.0	1730.7	1623.8	1443.8	1337.4	1314.9	1385.5	1557.4	1758.3	1793.1	1757.8
27.5°	1756.8	1741.0	1566.0	1357.9	1255.1	1234.1	1304.7	1479.1	1741.0	1840.2	1815.1
30°	1800.8	1754.3	1508.8	1291.4	1196.3	1180.9	1249.0	1411.5	1719.4	1900.0	1886.2
32.5°	1845.3	1759.8	1455.6	1252.6	1183.0	1188.6	1244.4	1375.2	1696.0	1957.2	1963.9
35°	1893.4	1777.8	1429.5	1290.9	1294.0	1343.1	1366.0	1409.1	1692.4	2035.0	2061.1
37.5°	1958.8	1817.6	1460.6	1481.6	1588.0	1689.8	1670.9	1574.2	1733.8	2151.2	2199.8
40°	2053.0	1887.7	1596.7	1806.5	2024.8	2190.0	2117.9	1874.4	1860.6	2318.3	2391.0
42.5°	2190.0	1999.3	1838.1	2203.2	2573.6	2845.7	2652.3	2261.6	2082.6	2557.2	2649.7
45°	2392.6	2179.8	2130.2	2622.2	3250.2	3678.8	3276.8	2674.3	2393.6	2918.8	2991.5
47.5°	2673.3	2445.2	2403.7	3063.5	4072.6	4627.1	3969.3	3056.9	2747.5	3411.8	3428.7
50°	3046.1	2802.7	2663.1	3546.3	4974.3	5593.6	4661.3	3426.2	3153.0	4014.3	3994.8
52.5°	3538.2	3301.3	2965.3	4006.1	5901.5	6539.8	5356.3	3750.4	3656.3	4713.5	4673.6
55°	4209.2	4051.6	3378.6	4444.9	6828.2	7491.6	6024.2	4056.2	4321.2	5544.0	5302.6
57.5°	5041.8	5154.3	3974.4	4953.8	7661.4	8472.5	6695.3	4483.8	5184.4	6472.8	5667.8
60°	5578.8	6620.6	5115.5	5706.2	8608.1	9581.8	7614.8	5297.0	6091.8	6805.8	5598.2
62.5°	5448.9	7087.1	6482.0	6666.6	9478.6	10388.4	8516.0	6113.8	6262.6	6315.2	5062.3
65°	5050.5	6710.6	6203.3	6853.4	9699.0	10433.9	8756.9	6008.4	5312.4	5155.9	4069.0
67.5°	4502.2	6264.1	5540.9	6358.3	9300.5	9797.7	8308.3	5314.9	4105.3	3869.1	2952.0
70°	3910.5	5770.0	5106.2	5802.8	8541.0	8688.9	7545.8	4674.6	3019.5	2612.9	1894.4
72.5°	3348.9	5255.6	4808.6	5233.5	7527.9	7222.0	6553.1	4108.4	2198.7	1884.7	1346.6
75°	2774.6	4496.6	4384.5	4557.5	6195.6	5688.7	5444.8	3401.6	1725.6	1363.5	929.3
77.5°	2140.9	3513.6	3771.4	3649.6	4361.1	4225.6	4220.4	2556.1	1260.8	909.9	582.5
80°	1465.2	2448.8	2946.4	2574.6	2830.3	2761.2	3178.6	1714.8	914.5	547.8	324.2
82.5°	861.3	1490.9	2050.9	1246.4	1565.0	1606.5	1892.9	834.1	538.0	126.3	70.6
85°	349.3	588.7	802.0	487.9	754.9	636.7	718.5	234.2	149.9	3.1	0.0
87.5°	87.9	188.2	131.9	54.7	87.4	80.3	63.4	28.6	6.1	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	1028.0	1028.0	1028.0	1028.0	1028.0	1028.0	1028.0	1028.0	1028.0	1028.0	1028.0
2.5°	1141.5	1129.8	1100.6	1071.4	1048.0	1016.2	995.3	970.2	946.2	924.7	920.6
5°	1262.3	1223.3	1170.1	1121.6	1071.9	1023.9	976.3	926.2	880.2	852.1	834.1
7.5°	1360.5	1291.9	1221.3	1159.5	1099.6	1043.3	980.4	919.5	847.5	809.1	774.3
10°	1433.6	1343.6	1251.0	1179.9	1119.5	1064.8	1011.7	950.3	863.4	815.3	763.1
12.5°	1481.6	1374.7	1266.3	1185.0	1117.5	1075.0	1051.5	1027.5	941.1	884.8	809.1
15°	1514.8	1396.8	1277.0	1173.2	1090.4	1059.2	1082.7	1110.4	1055.1	990.1	891.4
17.5°	1551.2	1425.4	1281.7	1141.5	1037.7	1024.4	1085.3	1149.2	1146.7	1082.2	985.5
20°	1589.6	1450.5	1278.6	1090.4	973.7	985.5	1063.3	1137.4	1168.6	1133.9	1048.0
22.5°	1628.9	1474.5	1266.8	1023.9	914.0	950.8	1028.5	1093.5	1130.3	1119.5	1054.1
25°	1678.5	1508.3	1249.5	952.3	864.4	915.5	988.1	1040.8	1066.3	1065.8	1020.8
27.5°	1737.9	1553.3	1240.2	894.5	829.0	875.6	940.0	987.1	1005.0	1005.0	969.1
30°	1807.0	1606.5	1230.0	856.7	808.6	834.1	884.3	930.3	948.2	948.2	918.0
32.5°	1883.6	1657.6	1205.5	833.6	793.2	793.8	825.4	867.4	888.9	892.0	870.4
35°	1975.7	1712.3	1151.8	815.3	775.3	754.4	769.7	804.5	830.0	836.7	823.4
37.5°	2096.4	1779.3	1075.0	788.1	747.7	713.0	716.6	743.1	771.2	781.5	772.7
40°	2258.5	1858.0	995.3	749.3	708.9	667.5	665.9	685.3	713.0	724.2	719.6
42.5°	2472.8	1952.7	919.0	712.0	661.8	619.3	616.8	632.1	656.2	668.0	665.9
45°	2747.0	2068.8	853.6	682.8	615.8	573.8	572.8	585.6	606.6	618.9	616.3
47.5°	3128.0	2184.9	809.1	667.5	579.4	536.5	538.5	549.8	568.8	577.4	573.8
50°	3624.6	2220.1	786.6	667.5	560.1	503.3	513.5	522.6	537.0	542.1	537.5
52.5°	4101.2	2103.6	766.2	671.5	562.6	475.1	497.1	503.8	516.1	518.1	511.5
55°	4334.9	1808.4	738.0	672.5	578.4	451.1	483.8	496.1	500.7	500.2	488.9
57.5°	4254.7	1462.2	690.4	668.4	589.2	435.7	467.5	491.0	494.0	489.4	468.5
60°	3972.9	1076.6	654.2	638.3	585.1	431.1	442.4	479.7	484.3	478.2	443.9
62.5°	3500.3	747.2	626.0	571.7	567.2	429.6	403.0	455.2	466.5	457.8	407.6
65°	2755.6	527.8	539.0	501.2	528.3	421.4	362.1	425.5	440.9	427.5	357.0
67.5°	1864.7	381.0	436.8	454.2	465.5	403.0	332.4	391.8	412.3	394.8	298.2
70°	1007.1	267.5	288.4	382.5	395.3	371.4	305.9	357.5	381.0	362.1	242.9
72.5°	594.8	192.3	202.0	307.4	329.3	326.8	276.1	317.6	346.2	323.7	197.4
75°	327.8	129.9	144.2	222.9	267.5	252.2	237.3	269.1	298.2	276.1	152.4
77.5°	146.8	77.7	100.2	146.3	210.2	172.9	183.6	209.7	236.8	213.8	101.8
80°	56.8	43.5	66.5	79.7	152.9	95.6	118.2	154.5	173.8	155.5	61.9
82.5°	7.2	19.5	28.6	31.2	89.0	50.6	68.6	97.2	95.6	82.8	31.2
85°	0.0	3.6	4.1	2.0	38.3	18.4	22.5	31.7	29.6	22.5	2.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	1028.0	1028.0	1028.0	1028.0	1028.0	1028.0	1028.0	1028.0	1028.0	1028.0	1028.0
2.5°	895.5	877.1	867.9	860.3	867.4	871.5	871.5	888.9	899.1	903.2	931.8
5°	789.1	754.9	731.8	718.0	722.6	727.7	733.4	755.4	770.2	779.9	824.4
7.5°	705.3	653.1	620.8	604.0	606.6	610.2	614.8	636.2	651.1	663.9	713.5
10°	663.9	590.2	547.8	527.3	523.7	521.6	520.1	532.9	544.2	554.4	603.5
12.5°	665.9	563.1	511.5	486.4	475.6	463.4	453.7	455.7	462.9	475.6	506.9
15°	692.0	554.4	492.5	461.4	443.4	429.1	417.4	414.8	417.4	419.4	438.8
17.5°	727.2	553.4	476.1	437.3	418.9	407.1	396.4	392.8	393.3	395.9	401.0
20°	755.4	550.3	457.8	414.3	397.9	387.7	376.9	373.3	374.3	374.8	380.5
22.5°	770.2	545.7	437.3	391.2	377.4	367.3	357.5	357.0	357.0	360.1	364.2
25°	770.2	536.0	418.9	369.3	357.0	347.8	336.0	338.0	339.1	343.2	349.3
27.5°	751.8	517.6	404.1	350.3	337.5	328.3	317.6	320.2	321.7	326.3	333.9
30°	728.3	495.6	387.1	332.4	317.6	311.0	301.8	302.8	304.8	310.0	318.7
32.5°	703.3	469.6	373.3	314.6	299.7	294.6	284.3	285.9	287.9	293.6	303.3
35°	675.6	438.8	357.0	298.2	283.3	279.2	267.5	268.5	271.6	277.7	287.4
37.5°	646.5	413.8	340.6	282.3	267.0	262.9	250.6	251.6	255.2	262.4	271.6
40°	617.9	389.2	323.2	265.5	250.1	246.5	233.2	234.2	238.3	246.0	255.7
42.5°	586.6	370.3	300.7	248.0	231.6	228.1	215.9	217.4	222.0	229.6	239.3
45°	549.3	358.0	275.6	231.6	213.3	209.7	198.4	201.5	206.6	214.3	224.5
47.5°	511.0	352.9	254.7	214.3	194.3	191.3	182.0	187.2	192.8	199.0	210.2
50°	474.1	346.2	233.2	197.9	177.9	174.9	168.8	175.4	181.0	186.7	197.4
52.5°	432.1	331.9	213.8	183.6	164.2	163.2	160.1	166.3	171.4	176.4	185.6
55°	388.7	308.9	196.9	170.9	152.4	153.4	151.9	157.0	161.1	165.7	173.8
57.5°	350.9	279.7	183.6	157.0	142.2	145.2	143.2	145.8	148.3	154.0	160.6
60°	312.5	245.0	168.8	140.6	131.9	135.5	129.9	129.4	130.4	131.9	144.2
62.5°	260.9	208.7	150.4	126.3	120.7	122.3	111.5	103.3	103.3	104.9	123.3
65°	209.7	174.9	129.9	110.0	105.4	104.3	89.0	77.7	76.7	81.3	97.2
67.5°	172.4	145.2	109.5	91.5	88.5	89.5	78.2	67.0	66.0	71.1	82.8
70°	142.7	117.2	87.4	70.6	73.7	78.2	67.0	56.3	54.7	59.3	70.6
72.5°	113.6	91.5	67.0	52.2	60.9	66.5	54.7	44.5	43.5	47.6	58.3
75°	83.3	65.5	45.5	37.8	47.0	52.2	39.9	31.7	30.1	33.7	44.5
77.5°	51.7	36.8	28.6	22.5	32.2	34.7	21.0	18.4	17.9	20.5	28.1
80°	24.1	15.9	13.8	7.7	11.8	13.8	8.7	9.7	10.2	12.3	17.4
82.5°	6.7	2.6	0.5	0.0	0.0	4.1	2.0	4.1	5.1	7.7	11.3
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.6	4.6	8.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	4.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	1028.0	1028.0	1028.0	1028.0	1028.0	1028.0	1028.0	1028.0
2.5°	953.4	973.7	1006.6	1040.3	1073.5	1107.3	1140.0	1151.8
5°	864.9	911.9	976.8	1046.4	1118.0	1190.6	1257.2	1287.3
7.5°	766.2	833.6	931.3	1040.3	1154.4	1268.3	1373.2	1421.8
10°	660.8	746.2	857.7	1005.0	1168.6	1326.1	1470.4	1533.3
12.5°	560.6	650.1	773.3	949.8	1157.4	1359.5	1532.8	1607.0
15°	476.6	556.0	688.9	884.3	1121.0	1361.5	1562.4	1643.8
17.5°	413.8	465.5	603.0	811.7	1073.5	1342.5	1572.7	1659.6
20°	382.5	396.9	491.5	718.5	1029.0	1324.6	1582.9	1674.4
22.5°	364.2	367.8	402.0	598.4	975.8	1319.0	1600.8	1694.9
25°	349.3	350.3	359.6	474.1	894.5	1315.4	1628.4	1723.0
27.5°	334.5	334.5	339.6	382.0	784.0	1300.1	1664.2	1756.8
30°	319.7	319.7	323.2	338.0	654.7	1269.9	1707.2	1800.8
32.5°	304.3	304.3	307.4	318.2	522.6	1232.0	1746.6	1845.3
35°	288.9	287.9	292.0	303.3	415.8	1184.0	1786.0	1893.4
37.5°	272.5	272.1	276.1	288.9	359.1	1128.2	1815.6	1958.8
40°	255.2	255.2	259.8	273.6	342.7	1058.2	1862.6	2053.0
42.5°	239.3	238.3	243.4	260.3	330.4	991.2	1947.1	2190.0
45°	224.0	222.0	226.5	247.5	308.9	967.6	2104.5	2392.6
47.5°	209.7	204.6	208.7	232.2	289.5	1055.6	2362.3	2673.3
50°	197.9	188.2	191.8	216.9	274.6	1246.4	2696.9	3046.1
52.5°	185.6	172.9	174.9	197.9	261.4	1427.9	3059.4	3538.2
55°	172.9	158.6	159.6	179.0	242.4	1455.1	3413.4	4209.2
57.5°	158.6	145.2	145.2	161.6	228.6	1261.3	3685.5	5041.8
60°	142.7	134.0	131.4	147.8	240.9	889.9	3717.2	5578.8
62.5°	125.3	120.7	117.2	134.5	250.1	527.3	3461.9	5448.9
65°	105.4	104.3	101.8	147.8	210.7	311.5	2972.0	5050.5
67.5°	88.5	86.9	86.9	155.0	160.1	195.9	2321.9	4502.2
70°	76.2	70.6	70.6	117.2	97.2	135.5	1621.2	3910.5
72.5°	64.0	57.8	53.7	93.6	72.7	99.2	1013.2	3348.9
75°	51.1	46.5	41.4	61.9	54.2	75.1	588.7	2774.6
77.5°	36.8	34.7	29.1	45.5	39.4	54.2	350.3	2140.9
80°	19.0	19.5	18.4	26.0	26.5	36.8	199.5	1465.2
82.5°	11.3	8.7	9.7	12.8	15.4	21.0	75.1	861.3
85°	7.2	4.6	4.6	6.1	7.7	8.2	23.1	349.3
87.5°	3.6	1.5	2.0	3.1	2.6	2.0	1.0	87.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)